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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,009

03/31/2004

James Christopher Deepak

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9222

21186

7590

05/30/2008

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EXAMINER

PHAM, LONG

ART UNIT

PAPER NUMBER

2814

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,009	Applicant(s) DEEPAK ET AL.	
	Examiner Long Pham	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 30-46 is/are pending in the application.
- 4a) Of the above claim(s) 6-11, 30-39 and 44-46 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40-43 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 3 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/23/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAndrew (US pat 6066402) in combination with Shimizu et al. (publication no. 59085395) and the applicant's admitted prior art (AAPA) of this application.

With respect to claims 1 and 2, McAndrew teaches a lead or wire or solder including 83 to 87 percent by weight of lead and a balance of tin. See the abstract.

McAndrew teaches the lead has 83-87 percent by weight of lead but fail to teach the lead 80 to 93 and 82-87 by weight of lead as recited in present claims 1 and 2, respectively.

However, in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05. Note that in this case, the claimed range of lead substantially overlap of the range taught by McAndrew.

Further with respect to claim 1, McAndrew fails to teach that lead has 2 to 12 by weight of silver.

Shimizu et al. teach adding a 1.5 percent by weight of silver to a lead to prevent erosion. See abstract.

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to incorporate the teaching of Shimizu et al. into the device McAndrew to attain the above benefit.

Note that since the difference between claimed value of 2 percent of weight of silver in lead and the value of 1.5 percent of weight of silver in lead of Shimizu et al. is very small, the difference would not produce any significant changes.

Further with respect to claim 1, how the lead is formed has not been given patentable weight since claimed invention is directed to a device or structure.

With respect to claim 4, McAndrew further teaches the lead is coupled to a lead or wire of a surface mount component. See the abstract.

With respect to claim 5, McAndrew fails to teach coupling the lead or wire or solder to a electronic or downhole electronic components or circuitry or assembly (including amplifier or processor or pressure sensor) or transducer or assembly.

AAPA teaches using lead or wire or solder to couple electronic components or circuitry assembly (including downhole transducer or assembly) (including amplifier or processor or pressure sensor) to provide electrical connections between electronic components or circuitry assembly (including downhole transducer or assembly). See page 1 of this application.

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to incorporate the teaching of AAPA into the device McAndrew to attain the above benefit.

Claims 12, 14, 15, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAndrew (US pat 6066402) in combination with the applicant's admitted prior art (AAPA) of this application.

With respect to claim 12, McAndrew teaches a lead or wire or solder including 83 to 87 percent by weight of lead and a balance of tin. See the abstract.

Further with respect to claim 1, how the lead is formed has not been given patentable weight since claimed invention is directed to a device or structure.

Further with respect to claim 12, McAndrew teaches the lead or wire or solder including 83 to 87 percent by weight of lead but does not teach the claimed range of 80 to 93 percent by weight of lead.

However, in the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05.

With respect to claims 12, 14, 16, and 17, McAndrew fails to teach coupling the lead to a electronic or downhole electronic components or circuitry or assembly (including amplifier or processor or pressure sensor) or transducer or assembly.

AAPA teaches using lead to couple electronic components or circuitry assembly (including downhole transducer or assembly) (including amplifier or processor or pressure sensor) to provide electrical connections between electronic components or circuitry assembly (including downhole transducer or assembly). See page 1 of this application.

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to incorporate the teaching of AAPA into the device McAndrew to attain the above benefit.

With respect to claim 15, it is submitted that a downhole transducer would be inherently capable of measuring a downhole temperature or pressure.

Allowable Subject Matter

Claims 3 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 40-43 are allowed.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 4-5, 12, and 14-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on Mon-Frid, 10am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Long Pham
Primary Examiner
Art Unit 2814

/Long Pham/
Primary Examiner, Art Unit 2814